# Francis M. Seely

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♦ Web Portfolio: <a href="https://seelvfrank.github.io/webportfolio/">https://seelvfrank.github.io/webportfolio/</a> ♦

#### **EDUCATION**

## Boston University, College of Computing and Data Sciences

Boston, MA

Bachelor of Science in Data Science; Minor in Computer Science

Expected May 2026

3.96 Major GPA | 3.70 Overall GPA

Relevant coursework:

<u>Graduate Electives:</u> Applied Machine Learning, Natural Language Processing <u>Standard Coursework:</u> Algorithms for Data Science, Database Mechanics, Programming for Data Science, Statistics and Probability Theory, Introduction to Bayesian Methods

#### **SKILLS**

**Technical:** Python (NumPy, Matplotlib, Pandas, Scikit-learn), SQL, Java, Rust, C

Tech Stack: Excel, Git, Jupyter Notebook, VSCode, Google Sheets

Individual: Communication, problem-solving, time management, collaboration, presentation

## **PROJECTS**

# **Degree of Separation Simulator**

May 2024

- Developed a graph analysis tool to read various graph datasets, directed and undirected, and compute shortest paths using BFS (Breadth-First-Search).
- Used Stanford's extensive datasets, like email-Eu-core and epinions, to emulate real-world scenarios and confirm the connectivity of graph vertices.
- Employed Rust's performance benefits to handle large-scale graph data efficiently.

# Fraud Detection Analysis

Dec 2024

- Conducted an exploratory data analysis to determine that the optimal way to preprocess the transaction data was through Scikit-learn Robust Scaler.
- Used logistic regression and the random forest algorithm for binary classification of fraudulent transactions and tuned parameters to maximize F1 scores to about 0.92

# Airport Flight Delay Exploratory Data Analysis

Nov 2023

- Utilized Python to explore and model a flight log dataset to determine which factors contribute to the highest chance of a flight delay.
- Discovered that flying Southwest Airlines in the evening leads to the highest chance of having a flight delay through EDA.

### **EXTRACURRICULAR EXPERIENCE**

BU Blockchain Club Feb 2025

An inclusive community committed to advancing blockchain technology through research, development, and innovation. Hosts hackathons, workshops, and other collaborative events to promote the development of an empowering and motivated blockchain community.

## **BU CDS Toastmasters Club**

May 2024

International nonprofit organization that promotes public speaking skills by hosting biweekly meetings where members give personal and professional speeches—both prepared and impromptu.

## **AWARDS**

# Winner of the College of General Studies Capstone Policy Paper

October 2024

 Collaborated with six peers to create a 62-page policy proposal for harm reduction efforts in Newark, New Jersey, and gave a two-hour oral defense before three judges.